

Claims

- [c1] 1. A vehicle trim panel, comprising:
 - a structural frame portion having an inner surface for facing a vehicle body and an outer surface opposite the inner surface; and
 - a plurality of flexible projections extending from the inner surface of the structural frame portion and configured to contact the vehicle body to thereby reduce buzz, squeak, and rattle (BSR) between the trim panel and the vehicle body.
- [c2] 2. The trim panel of claim 1, the structural frame portion including an aperture for receiving a fastener and wherein at least a portion of the plurality of flexible projections are located proximate the aperture.
- [c3] 3. The trim panel of claim 1, wherein the structural frame portion and the flexible projections are molded together.
- [c4] 4. The trim panel of claim 3, wherein the structural frame portion and the flexible projections are molded from one of acrylonitrile-butadiene-styrene (ABS) or polypropylene.

- [c5] 5. The trim panel of claim 1, wherein the length of each projection is approximately 1.0 millimeter (mm) and the width of each projection is approximately 0.3 to 1.0 mm.
- [c6] 6. The trim panel of claim 1, wherein the plurality of flexible projections each have a generally cylindrical shape.
- [c7] 7. The trim panel of claim 6, wherein the generally cylindrical shape is generally rounded at a distal end thereof.
- [c8] 8. A vehicle, comprising:
 - a body; and
 - a trim panel, the trim panel including a structural frame portion having an inner surface facing the body, an outer surface opposite the inner surface and a plurality of flexible projections extending from the inner surface of the structural frame portion and configured to contact the body to thereby reduce buzz, squeak and rattle (BSR) between the trim panel and the body.
- [c9] 9. The vehicle of claim 8, the structural frame portion including an aperture for receiving a fastener and wherein at least a portion of the plurality of flexible projections are located proximate the aperture.
- [c10] 10. The vehicle of claim 8, wherein the structural frame

portion and the flexible projections are molded together.

- [c11] 11. The vehicle of claim 10, wherein the structural frame portion and the flexible projections are molded from one of acrylonitrile-butadiene-styrene (ABS) or polypropylene.
- [c12] 12. The vehicle of claim 8, wherein the length of each projection is approximately 1.0 mm and the width of each projection is approximately 0.3 to 1.0 mm.
- [c13] 13. The vehicle of claim 8, wherein the plurality of flexible projections each have a generally cylindrical shape.
- [c14] 14. The vehicle of claim 13, wherein the generally cylindrical pin shape is generally rounded at a distal end thereof.
- [c15] 15. A method of reducing buzz, squeak and rattle (BSR) between a trim panel and a vehicle body comprising:
positioning a plurality of flexible projections between the trim panel and the vehicle body; and
absorbing vibration between the trim panel and the body panel by contacting and deflecting the projections with the vehicle body.
- [c16] 16. The method of claim 15, wherein the plurality of projections extend along respective axes and the

method further comprises:
deflecting the projections by bending the projections
away from their respective axes.

- [c17] 17. The method of claim 15, further comprising posi-
tioning at least a portion of the plurality of flexible pro-
jections proximate an aperture in the trim panel for re-
ceiving a fastener.
- [c18] 18. The method of claim 15, further comprising posi-
tioning at least a portion of the plurality of flexible pro-
jections proximate a fastener in the trim panel.